

To: Robert Stratton  
17 State House Station  
Augusta, ME 04333-0017

Date: November 17, 2011

From: The Houlton Band of Maliseet Indians

Please review our comments and concerns regarding proposed changes in Chapters 584 and 530.

The Houlton Band of Maliseet Indians is concerned that the changes proposed to Chapter 584 will increase cancer risk for our tribal membership. Combining a weakened cancer-risk level with an already inadequate fish consumption rate to establish an arsenic water quality criterion will not protect the subsistence lifeways that embody our culture and traditions. According to EPA guidance, when water quality criteria are set using a cancer Risk level of  $10^{-4}$ , consumption rates of sensitive subpopulations must be accounted for. Not doing so poses a risk to that population that exceeds one-in-ten thousand. The peer reviewed study “Wabanaki Traditional Cultural Life-ways Exposure Pathway Scenario” (<http://www.epa.gov/negovt/tribes/pdfs/DITCA.pdf>), reflects a Wabanaki subsistence exposure pathway via fish consumption as 286 - 514 grams per day, a far cry from the state’s rate of 32.4 grams per day. The state’s consumption rate was developed based on a study done by “Chemrisk, 1992” which, for several reasons, does not adequately account for Native American cultural practices. The study was initiated after fish consumption guidelines were already in place, thus potentially characterizing fish consumption that is inhibited or suppressed by toxic exposure concerns. The sample size of 43 Native Americans anglers is too low to make any statistically

valid conclusions regarding fish consumption in this population, and finally, because the study targeted anglers with Maine State licenses, it completely missed tribal members who obtain their licenses from tribal governments. Lack of recognition and protection for the fundamentally important cultural practice of fishing to provide food for family and community threatens the health and welfare of our Tribe. Rule making which weakens already inadequate standards harms us even further.

Another concern the proposed arsenic criterion does not consider are other exposure routes and possible synergistic effects. In 2007, drinking water well tests results for local tribal wells revealed measurable amounts of arsenic, including one well that measured 17 ug/l, well over the drinking water standard of 10 ug/L. Further, data from the Aroostook Band of Micmac drinking water lab indicates pockets of high arsenic levels over the drinking water limit, in Houlton and surrounding towns. Arsenic was used as a pesticide in Maine between 1920 and the late 1960s. High levels can still be found in soil where arsenic-containing pesticides were applied to apple orchards, potato and blueberry fields, and along roadways (Body of Evidence Report, Alliance for a Clean and Healthy Maine, <http://www.cleanandhealthyme.org/BodyofEvidenceReport/TheChemicals/Arsenic/tabid/102/Default.aspx>). Aroostook County Maine is estimated to have approximately 148,000 acres planted in potato crops between 1930 – 1960 (National Agriculture Statistics Service, [www.nass.usda.gov](http://www.nass.usda.gov)). In addition to direct exposure from the soil, growing garden crops on these soils raises potential problems because plant-arsenic concentrations tend to increase with increasing soil arsenic (Gardening on Lead and Arsenic Contaminated Soil, Cooperative Extension Washington State University, <http://cru.cahe.wsu.edu/cepublications/eb1884/eb1884.pdf>). In addition to risks from exposure to contaminated water, soil, and food, smoking combined with arsenic exposure greatly increases the risk of death from cardiovascular disease. 58.5% of Maliseet tribal members are current smokers in comparison to 17.3% in the State of Maine 2010 BRFSS survey (Behavioral Risk Factor Surveillance System).

The potential for inorganic arsenic to have synergistic effects when ingested with other neurotoxins or carcinogens are not fully known at this time. The Meduxnekeag River and all rivers in Maine are known to have elevated mercury. What is the cancer risk to tribal members by being exposed to elevated mercury in combination with high arsenic levels? The risk from

cumulative and synergistic effects and multiple toxins is not adequately accounted for at the state or federal level.

Changes to the language of **Chapter 530**, Section 4. E. describe “for the purpose of calculating waste discharge license limits for toxic substances, the department may use any unallocated assimilative capacity that the Department has set aside for future growth if the use of that unallocated assimilative capacity would avoid an exceedence of ambient water quality criteria...” This weakens the original intent to create a safety reserve for future use, and is not the intention of the Clean Water Act.

US EPA Technical Support Document for Water Quality-based Toxics control (1991) document states “...mass-based effluent limits alone may not assure attainment of water quality standards in waters with low dilution. In these waters, the quantity of effluent discharged has a strong effect on the instream dilution and therefore upon the river water concentration”. “Therefore, EPA recommends that permit limits on both mass and concentration be specified for effluents discharging into waters with less than 100 fold dilution to ensure attainment of water quality standards.” During dry summers, such as 2010, flow in the Meduxnekeag River reached a low of 10 cfs, and remained below 20 cfs for over 3 weeks. The average discharge of the local wastewater discharge to this watershed is ~ 2.3 cfs, a dilution of 5 to 10 fold, strikingly lower than a 100 fold dilution as recommended by EPA.

The health issues that our tribal members face are increasing in part due to the lack of available clean resources like water and traditional foods. Tribal culture subsisted for thousands of years living on the food and water provided by the land, and those are the resources that we need to protect for the health, safety and well-being of the next generations and for today.

Respectfully submitted by,

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